ELSEVIER International Journal of Mass Spectrometry and Ion Processes 175 (1998) 325

International Journal of Mass Spectrometry and Ion Processes

Author index

Abboud, J.-L.M., 35
Appelhans, A.D., 253
Armentrout, P.B., 93
Auberry, K.J., 1
Audier, H., 133

Bartmess, J.E., 71
Berthomieu, D., 133
Burton, R.D., 149

Cassady, J., 159
Castaño, O., 35
Catalán, J., 51
Cecchi, P., 317
Chen, G., 205
Chen, Q., 1
Cooks, R.G., 205

de Paz, J.L.G., 51
Dearden, D.V., 179
Decouzon, M., 27
Denault, J.W., 205
DeTuri, V.F., 123

Elguero, J., 35
Eriksson, J., 293
Ervin, K.M., 123
Ewing, N.P., 159
Eyler, J.R., 149

Fernández de la Mora, J., 277
Freiser, B.S., 1
Freitas, M.A., 107

Gal, J.-F., 27, 61
Grandinetti, F., 317
Green, M.K., 15
Groenewold, G.S., 253
Guillemin, J.-C., 27

Herreros, M., 35
Higgins, P.R., 71
Hirabayashi, A., 241, 277
Hofstadler, S.A., 179
Huang, Y., 187

Ingram, J.C., 253

Jagerovic, N., 35

Karelson, M., 149
Katritzky, A.R., 149
Kenttämaa, H.I., 173
Kobayashi, S., 41
Koppel, I., 61
Koppel, J., 61
Kumar, S., 247

Leblanc, D., 133
Lebrilla, C.B., 15
Lu, W., 309

Maria, P.-C., 27, 61
Marshall Pope, R., 179
Matsumoto, T., 41
McMahon, T.B., 225
Mishima, M., 41
Morton, T.H., 133

Notario, R., 35, 61

O'Hair, R.A.J., 107

Pal, S., 247
Palomar, J., 51
Pastor, J., 81
Peschke, M., 225
Pérez, J., 173
Prakash, S., 247

Qi, M., 149

Reimann, C.T., 293
Rottler, J., 293
Russell, D.H., 187

Sak, K., 35
Seto, C., 263
Shen, N., 179
Shipkova, P.A., 149
Sievers, M.R., 93
Smith, R.L., 173
Squires, R.R., 215
Stone, J.A., 263
Szulejko, J.E., 225

Taft, R.W., 61
Thoen, K.K., 173
Tsuno, Y., 41
Tutko, D., 173

Vinciguerra, V., 317
Vlasov, V.M., 61

Walter, D., 93
Watson, C.H., 149
Wenthold, P.G., 215
Wilkins, C.L., 81
Wilkinson, F.E., 225
Wincel, H., 283

Yang, S., 309

Zhang, X., 159

ELSEVIER International Journal of Mass Spectrometry and Ion Processes 175 (1998) 327–331

Subject index

1-Aryl-3,3-dimethylbutynes
Substituent effects on the gas-phase basicities of 1-arylpropynes and 1-aryl-3,3-dimethylbutynes
Effects of the β-alkyl groups on the resonance demand of vinyl cations 41
1-Arylpropynes
Substituent effects on the gas-phase basicities of 1-arylpropynes and 1-aryl-3,3-dimethylbutynes
Effects of the β-alkyl groups on the resonance demand of vinyl cations 41
Ab initio
Protonated NF_3O. A G2MS theoretical study on the structure, stability, and interconversion of the $(NF_3O)H^+$ isomers 317
Superacid chemistry in the gas phase: dissociative proton attachment to halomethanes 35
Ab initio calculations
Characterization of an ambient electrophile: the gas phase reactivity of the methoxymethyl cation 107
Acetonitrile
The reactions of $Cu^{2+}(CH_3CN)_n$ $(n = 2–4)$ and $Cu^{2+}(CH_3CN)_3(H_2O)$ at low collision energy with neutral molecules in a triple sector quadrupole instrument 263
Acidities
The gas-phase acidities of long chain alcohols 71
Acidities in DMSO
Comparison of Brönsted acidities of neutral NH-acids in gas phase, dimethyl sulfoxide and water 61
Acidity
On the acidity and basicity of azoles: the Taft scheme for electrostatic proximity effects 51
Adduct ions
Deuterium isotope effects on gas phase ion–molecule hydrogen-bonding interactions: alcohol–alkoxide and alcohol–chloride adduct ions 225
Alcohols
The gas-phase acidities of long chain alcohols 71
Alkali cations
Gas phase stripping of alkali cations from biomolecules via reaction with crown ethers 179
Arsines
The gas-phase basicity of ethyl-, ethenyl- and ethynylphosphines and arsines 27
Azoles
On the acidity and basicity of azoles: the Taft scheme for electrostatic proximity effects 51

Basicity
On the acidity and basicity of azoles: the Taft scheme for electrostatic proximity effects 51
Bond dissociation energies
Alaki ion carbonyls: sequential bond energies of $Li^+(CO)_x$ $(x = 1–3)$, $Na^+(CO)_x$ $(x = 1, 2)$ and $K^+(CO)$ 93
Reactions of $FeCF_2^+$ and $CoCF_2^+$ with simple alkanes and olefins in the gas phase: an FTICR and density functional study 1
Bond dissociation energy
Proton transfer between Cl^- and C_6H_5OH. O–H bond energy of phenol 123
Bond enthalpies
Gas-phase equilibria studies of $C_2H_2N^+$ and $C_3H_4N^+$ with CH_3CN 283

Cation tagging
Cation tagging for monitoring gas phase reactions. Electrospray FTICR/MS study of ester pyrolysis 149
Charge number
Charged droplet formation in sonic spray 277
Charged droplet
Evaporation of charged fine droplets 241
Chemical ionization
Multiple protonation sites in aryl ethers 133
Cinnamic acid derivatives
Photochemistry and proton transfer reaction chemistry of selected cinnamic acid derivatives in hydrogen bonded environments 187
Collision assisted dissociation (CAD)
The reactions of $Cu^{2+}(CH_3CN)_n$ $(n = 2–4)$ and $Cu^{2+}(CH_3CN)_3(H_2O)$ at low collision energy with neutral molecules in a triple sector quadrupole instrument 263
Collision-induced dissociation
Proton transfer between Cl^- and C_6H_5OH. O–H bond energy of phenol 123
Reactions of $FeCF_2^+$ and $CoCF_2^+$ with simple alkanes and olefins in the gas phase: an FTICR and density functional study 1

Collision-induced dissociation reactions
Alaki ion carbonyls: sequential bond energies of $Li^+(CO)_x$ $(x = 1–3)$, $Na^+(CO)_x$ $(x = 1, 2)$ and $K^+(CO)$ 93
Copper
The reactions of $Cu^{2+}(CH_3CN)_n$ $(n = 2–4)$ and $Cu^{2+}(CH_3CN)_3(H_2O)$ at low collision energy with neutral molecules in a triple sector quadrupole instrument 263
Cross-section
Partial doubly differential cross-sections for the ionization of H_2 by electron impact 247

Dehydration reaction
Deuterium substitution effects on the dehydration of $Fe^+(CH_3OH)_n$ 309
Density functional calculations
Reactions of $FeCF_2^+$ and $CoCF_2^+$ with simple alkanes and olefins in the gas phase: an FTICR and density functional study 1
Deprotonation
Effects of basic site proximity on deprotonation and hydrogen/deuterium exchange reactions for model dodecapeptide ions containing lysine and glycine 159
Deuterium isotope effects
Deuterium isotope effects on gas phase ion–molecule hydrogen-bonding interactions: alcohol–alkoxide and alcohol–chloride adduct ions 225
Deuterium substitution
Deuterium substitution effects on the dehydration of $Fe^+(CH_3OH)_n$ 309
DFT
Protonated NF_3O. A G2MS theoretical study on the structure, stability, and interconversion of the $(NF_3O)H^+$ isomers 317
Diamines
The role of proton-bridged intermediates in promoting hydrogen–deuterium exchange in gas phase protonated diamines, peptides and proteins 15
Dimethylene ketene radical cation
Disulfide bond cleavage in neutral substrates by the dimethylene ketene radical cation inside a mass spectrometer 173
Dissociation
Partial doubly differential cross-sections for the ionization of H_2 by electron impact 247
Sustained off-resonance irradiation and collision-induced dissociation for structural analysis of polymers by MALDI-FTMS 81
Distonic ion
Gas-phase acidities of *o*-, *m*- and *p*-dehydrobenzoic acid radicals. Determination of the substituent constants for a phenyl radical site 215
Disulfides
Disulfide bond cleavage in neutral substrates by the dimethylene ketene radical cation inside a mass spectrometer 173
Droplet diameter
Charged droplet formation in sonic spray 277

Electric field
Evaporation of charged fine droplets 241
Electron impact
Partial doubly differential cross-sections for the ionization of H_2 by electron impact 247
Electronic sputtering
Fast-ion-induced surface tracks in bioorganic films 293
Electrospray
Cation tagging for monitoring gas phase reactions. Electrospray FTICR/MS study of ester pyrolysis 149
Evaporation of charged fine droplets 241
End groups
Sustained off-resonance irradiation and collision-induced dissociation for structural analysis of polymers by MALDI-FTMS 81
ESI-FT-ICR
Effects of basic site proximity on deprotonation and hydrogen/deuterium exchange reactions for model dodecapeptide ions containing lysine and glycine 159
Ester pyrolysis
Cation tagging for monitoring gas phase reactions. Electrospray FTICR/MS study of ester pyrolysis 149
Exchange
The reactions of $Cu^{2+}(CH_3CN)_n$ $(n = 2–4)$ and $Cu^{2+}(CH_3CN)_3(H_2O)$ at low collision energy with neutral molecules in a triple sector quadrupole instrument 263

Free radical
Gas-phase acidities of *o*-, *m*- and *p*-dehydrobenzoic acid radicals. Determination of the substituent constants for a phenyl radical site 215
FT-ICR
Multiple protonation sites in aryl ethers 133
Superacid chemistry in the gas phase: dissociative proton attachment to halomethanes 35
The gas-phase basicity of ethyl-, ethenyl- and ethynyl-phosphines and arsines 27
FTICR
Comparison of Brönsted acidities of neutral NH-acids in gas phase, dimethyl sulfoxide and water 61
Reactions of $FeCF_2^+$ and $CoCF_2^+$ with simple alkanes and olefins in the gas phase: an FTICR and density functional study 1

FTICR/MS
Cation tagging for monitoring gas phase reactions. Electrospray FTICR/MS study of ester pyrolysis 149

G2MS theory
Protonated NF_3O. A G2MS theoretical study on the structure, stability, and interconversion of the $(NF_3O)H^+$ isomers 317
Gas phase
The gas-phase acidities of long chain alcohols 71
Characterization of an ambient electrophile: the gas phase reactivity of the methoxymethyl cation 107
Gas phase acidity
Proton transfer between Cl^- and C_6H_5OH. O–H bond energy of phenol 123
Gas-phase acidities of *o*-, *m*- and *p*-dehydrobenzoic acid radicals. Determination of the substituent constants for a phenyl radical site 215
Gas phase stripping
Gas phase stripping of alkali cations from biomolecules via reaction with crown ethers 179
Gas-phase activities
Comparison of Brönsted acidities of neutral NH-acids in gas phase, dimethyl sulfoxide and water 61
Gas-phase basicities
The gas-phase basicity of ethyl-, ethenyl- and ethynylphosphines and arsines 27
Gas-phase basicity
Substituent effects on the gas-phase basicities of 1-arylpropynes and 1-aryl-3,3-dimethylbutynes
Effects of the β-alkyl groups on the resonance demand of vinyl cations 41
Gas-phase equilibria
Gas-phase equilibria studies of $C_2H_2N^+$ and $C_3H_4N^+$ with CH_3CN 283
Gas-phase ion–molecule reactions
Reactions of $FeCF_2^+$ and $CoCF_2^+$ with simple alkanes and olefins in the gas phase: an FTICR and density functional study 1
Gramicidin 5
Gas phase stripping of alkali cations from biomolecules via reaction with crown ethers 179
Grown ethers
Gas phase stripping of alkali cations from biomolecules via reaction with crown ethers 179
Guided ion beam
Proton transfer between Cl^- and C_6H_5OH. O–H bond energy of phenol 123

H/D exchange
Effects of basic site proximity on deprotonation and hydrogen/deuterium exchange reactions for model dodecapeptide ions containing lysine and glycine 159
Halomethane
Superacid chemistry in the gas phase: dissociative proton attachment to halomethanes 35
Halomethyl cations
Superacid chemistry in the gas phase: dissociative proton attachment to halomethanes 35
High-pressure mass spectrometer
Gas-phase equilibria studies of $C_2H_2N^+$ and $C_3H_4N^+$ with CH_3CN 283
Hydrogen molecule
Partial doubly differential cross-sections for the ionization of H_2 by electron impact 247
Hydrogen–deuterium exchange
The role of proton-bridged intermediates in promoting hydrogen–deuterium exchange in gas phase protonated diamines, peptides and proteins 15
Hydrogen-bonding interactions
Deuterium isotope effects on gas phase ion–molecule hydrogen-bonding interactions: alcohol–alkoxide and alcohol–chloride adduct ions 225

Ion cyclotron resonance
The gas-phase acidities of long chain alcohols 71
Ion evaporation
Evaporation of charged fine droplets 241
Ion trap
Ion-trap SIMS analysis of pinacolyl methylphosphonic acid on soil 253
Ion–molecule reactions
Characterization of an ambient electrophile: the gas phase reactivity of the methoxymethyl cation 107
Disulfide bond cleavage in neutral substrates by the dimethylene ketene radical cation inside a mass spectrometer 173
Ion/molecule
The gas-phase acidities of long chain alcohols 71
Ionization energy
Estimation of ionization energies of substituted anilines by the kinetic method 205

Kinetic method
Estimation of ionization energies of substituted anilines by the kinetic method 205
Gas-phase acidities of *o*-, *m*- and *p*-dehydrobenzoic acid radicals. Determination of the substituent constants for a phenyl radical site 215
Kinetics
Characterization of an ambient electrophile: the gas phase reactivity of the methoxymethyl cation 107

Ligand
The reactions of $Cu^{2+}(CH_3CN)_n$ ($n = 2$–4) and $Cu^{2+}(CH_3CN)_3(H_2O)$ at low collision energy with

neutral molecules in a triple sector quadrupole instrument 263

MALDI
Sustained off-resonance irradiation and collision-induced dissociation for structural analysis of polymers by MALDI-FTMS 81
Mass spectrometry
Reactions of $FeCF_2^+$ and $CoCF_2^+$ with simple alkanes and olefins in the gas phase: an FTICR and density functional study 1
Methanol clusters
Deuterium substitution effects on the dehydration of $Fe^+(CH_3OH)_n$ 309
Methoxymethyl cation
Characterization of an ambient electrophile: the gas phase reactivity of the methoxymethyl cation 107
MIKES
Multiple protonation sites in aryl ethers 133
Mobility
Evaporation of charged fine droplets 241
Molecular modeling
Effects of basic site proximity on deprotonation and hydrogen/deuterium exchange reactions for model dodecapeptide ions containing lysine and glycine 159
Multiply-charged droplet
Charged droplet formation in sonic spray 277

Negative translational kinetic energy release
Multiple protonation sites in aryl ethers 133
NH-acids
Comparison of Brönsted acidities of neutral NH-acids in gas phase, dimethyl sulfoxide and water 61

Partial double differential
Partial doubly differential cross-sections for the ionization of H_2 by electron impact 247
PDMS
Fast-ion-induced surface tracks in bioorganic films 293
Peptides
Effects of basic site proximity on deprotonation and hydrogen/deuterium exchange reactions for model dodecapeptide ions containing lysine and glycine 159
The role of proton-bridged intermediates in promoting hydrogen–deuterium exchange in gas phase protonated diamines, peptides and proteins 15
Phenol
Proton transfer between Cl^- and C_6H_5OH. O–H bond energy of phenol 123
Phosphines
The gas-phase basicity of ethyl-, ethenyl- and ethynylphosphines and arsines 27
Pinacolyl methylphosphonic acid
Ion-trap SIMS analysis of pinacolyl methylphosphonic acid on soil 253
Polymers
Sustained off-resonance irradiation and collision-induced dissociation for structural analysis of polymers by MALDI-FTMS 81
Proteins
The role of proton-bridged intermediates in promoting hydrogen–deuterium exchange in gas phase protonated diamines, peptides and proteins 15
Proton transfer
Photochemistry and proton transfer reaction chemistry of selected cinnamic acid derivatives in hydrogen bonded environments 187
Proton-bridged intermediates
The role of proton-bridged intermediates in promoting hydrogen–deuterium exchange in gas phase protonated diamines, peptides and proteins 15
Protonated NF_3O
Protonated NF_3O. A G2MS theoretical study on the structure, stability, and interconversion of the $(NF_3O)H^+$ isomers 317
Pyridinium cations
Cation tagging for monitoring gas phase reactions. Electrospray FTICR/MS study of ester pyrolysis 149

Rayleigh limit
Charged droplet formation in sonic spray 277

Scanning force microscopy
Fast-ion-induced surface tracks in bioorganic films 293
Secondary-ion mass spectrometry
Ion-trap SIMS analysis of pinacolyl methylphosphonic acid on soil 253
Sequential bond energies
Alaki ion carbonyls: sequential bond energies of $Li^+(CO)_x$ ($x = 1$–3), $Na^+(CO)_x$ ($x = 1$, 2) and $K^+(CO)$ 93
Site of protonation
The gas-phase basicity of ethyl-, ethenyl- and ethynylphosphines and arsines 27
Soil
Ion-trap SIMS analysis of pinacolyl methylphosphonic acid on soil 253
Solvent effects
Comparison of Brönsted acidities of neutral NH-acids in gas phase, dimethyl sulfoxide and water 61
Sonic spray
Charged droplet formation in sonic spray 277
SORI-CID
Sustained off-resonance irradiation and collision-

induced dissociation for structural analysis of polymers by MALDI-FTMS 81
Substituent effects
Gas-phase acidities of *o*-, *m*- and *p*-dehydrobenzoic acid radicals. Determination of the substituent constants for a phenyl radical site 215
Substituted anilines
Estimation of ionization energies of substituted anilines by the kinetic method 205
Surface tracks
Fast-ion-induced surface tracks in bioorganic films 293
Swift heavy ions
Fast-ion-induced surface tracks in bioorganic films 293
Thermodynamics
Superacid chemistry in the gas phase: dissociative proton attachment to halomethanes 35
Time-of-flight mass spectrometry
Photochemistry and proton transfer reaction chemistry of selected cinnamic acid derivatives in hydrogen bonded environments 187
Transition metal carbene complexes
Reactions of $FeCF_2^+$ and $CoCF_2^+$ with simple alkanes and olefins in the gas phase: an FTICR and density functional study 1
Vinyl cations
Substituent effects on the gas-phase basicities of 1-arylpropynes and 1-aryl-3,3-dimethylbutynes
Effects of the β-alkyl groups on the resonance demand of vinyl cations 41